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From the
INTERNATIONAL SEARCHING AUTHORITY

REC'D 11 JAN 2005

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To:

C&S PATENT AND LAW OFFICE

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PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing
(day/month/year) 03 JANUARY 2005 (03.01.2005)

Applicant's or agent's file reference
PCT-2638

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/KR2004/002901

International filing date (day/month/year)
10 NOVEMBER 2004 (10.11.2004)

Priority date(day/month/year)
10 NOVEMBER 2003 (10.11.2003)

International Patent Classification (IPC) or both national classification and IPC
IPC7 C22C 38/00

Applicant
POSCO et al

1. This opinion contains indications relating to the following items:


- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.
For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/KR
 Korean Intellectual Property Office
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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/KR2004/002901

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing
☐ table(s) related to the sequence listing

b. format of material

- ☐ in written format
☐ in computer readable form

c. time of filing/furnishing

- ☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/KR2004/002901

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-81	YES
	Claims		NO
Inventive step (IS)	Claims	1-81	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-81	YES
	Claims		NO

2. Citations and explanations :

Reference is made to the following document:

D1: KR 2000-39137 (05 July 2000)

The present invention relates to a cold rolled strip having high yield strength and a high non-aging property and improved workability, and a method for manufacturing the same, characterized by the inclusion of C, Mn, S, P, Al, N, and Cu, the numerical limitation of the composition range of Mn/S, Cu/S, Mn+Cu, and (Mn+Cu)/S, the limitation of the average size of the precipitates of MnS, CuS, and (Mn,Cu)S to 0.2 μ m or lower, and hot rolling, coiling, cold rolling, and annealing.

D1 relates to a method for manufacturing a cold rolled strip for a vehicle having a non-aging property and excellent workability, characterized by the inclusion of C, Mn, S, P, Al, and N, the limitation of C+N+S+P to 0.025% or lower, and hot rolling, coiling, cold rolling, and annealing of the slab including Fe and the other inevitably contained elements.

Following are comparisons between the present invention and the invention of D1: the present invention is the same as the invention of D1 in that Ti, Nb, and B, which are elements for forming nitride, are not added to the composition of steel in order to improve a non-aging property and workability; but the present invention differs from D1 in the addition of Cu, the numerical limitation of the composition range of Mn/S, Cu/S, Mn+Cu, and (Mn+Cu)/S, the limitation of the average size of the precipitates to 0.2 μ m or lower; the high yield strength due to fine precipitates and excellent balance of strength-ductility as well as excellent workability.

Therefore, the present invention is considered to be novel, to involve an inventive step, and to be industrially applicable.